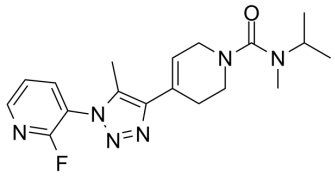
FTIDC

Cat. No.:	HY-100405
CAS No.:	873551-53-2
Molecular Formula:	$C_{18}H_{23}FN_6O$
Molecular Weight:	358.41
Target:	mGluR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (279.01 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7901 mL	13.9505 mL	27.9010 mL
5 mM	0.5580 mL	2.7901 mL	5.5802 mL
10 mM	0.2790 mL	1.3951 mL	2.7901 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.98 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.98 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

FTIDC is an orally active, noncompetitive, selective allosteric metabotropic glutamate receptor (mGluR) 1 antagonist with an IC_{50} of 5.8 nM for human mGluR1a. FTIDC has no species differences in its antagonistic activity on recombinant human, mouse, and rat mGluR1[1].

IC_{50} & Target

mGluR1a	$mGlu_5$
5.8 nM (IC_{50})	6200 nM (IC_{50})

In Vitro

FTIDC inhibits L-glutamate-induced increases in intracellular Ca^{2+} concentrations, with IC_{50} values of 5.8 nM , 5.8 nM , 3.1 nM , 7.7 nM for human mGluR1a, rat mGluR1a, mouse mGluR1a, human mGluR1b in CHO cells, respectively[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

FTIDC (i.p. or p.o.; 1-30 mg/kg) reduces the duration of face-washing behavior elicited in a dosedependent manner and the inhibitory effect is statistically significant at 10 and 30 mg/kg with i.p. and 30 mg/kg with p.o.[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male CD1 (ICR) mice of 6-weeks-old[1]
Dosage:	1, 3, 10, and 30 mg/kg
Administration:	I.p. or p.o.
Result:	Reduced the duration of face-washing behavior elicited in a dosedependent manner and was statistically significant at 10 and 30 mg/kg with i.p. and 30 mg/kg with p.o..

REFERENCES

[1]. Suzuki G, et al. Pharmacological characterization of a new, orally active and potent allosteric metabotropic glutamate receptor 1 antagonist, 4-[1-(2-fluoropyridin-3-yl)-5-methyl-1H-1,2,3-triazol-4-yl]-N-isopropyl-N-methyl-3,6-dihydropyridine-1(2H)-carbox

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA